

subject to the parking brake requirements of FMVSS No. 571.105 (S5.2) must be equipped with a parking brake system that meets the requirements of paragraph (c) of this section.

(b) *Air-braked power units manufactured on or after March 1, 1975, and air-braked trailers manufactured on or after January 1, 1975.* Each air-braked bus, truck and truck tractor manufactured on and after March 1, 1975, and each air-braked trailer except an agricultural commodity trailer, converter dolly, heavy hauler trailer or pulpwood trailer, shall be equipped with a parking brake system as required by FMVSS No. 121 (S5.6) in effect at the time of manufacture. The parking brake shall be capable of holding the vehicle or combination of vehicles stationary under any condition of loading in which it is found on a public road (free of ice and snow). An agricultural commodity trailer, heavy hauler or pulpwood trailer shall carry sufficient chocking blocks to prevent movement when parked.

(c) *Vehicles not subject to FMVSS Nos. 105 and 121 on the date of manufacture.*

(1) Each singly driven motor vehicle not subject to parking brake requirements of FMVSS Nos. 105 or 121 at the time of manufacture, and every combination of motor vehicles must be equipped with a parking brake system adequate to hold the vehicle or combination on any grade on which it is operated, under any condition of loading in which it is found on a public road (free of ice and snow).

(2) The parking brake system shall, at all times, be capable of being applied by either the driver's muscular effort or by spring action. If other energy is used to apply the parking brake, there must be an accumulation of that energy isolated from any common source and used exclusively for the operation of the parking brake.

Exception: This paragraph shall not be applicable to air-applied, mechanically-held parking brake systems which meet the parking brake requirements of FMVSS No. 121 (S5.6).

(3) The parking brake system shall be held in the applied position by energy other than fluid pressure, air pressure, or electric energy. The parking brake system shall not be capable of being re-

leased unless adequate energy is available to immediately reapply the parking brake with the required effectiveness.

[70 FR 48048, Aug. 15, 2005]

§ 393.42 Brakes required on all wheels.

(a) Every commercial motor vehicle shall be equipped with brakes acting on all wheels. This requirement also applies to certain motor vehicles being towed in a driveaway-towaway operation, as follows:

(1) Any motor vehicle towed by means of a tow-bar when another motor vehicle is full-mounted on the towed vehicle; and

(2) Any saddle-mount configuration with a fullmount.

(b) *Exception.* (1) Trucks or truck tractors having three or more axles and manufactured before July 25, 1980, are not required to have brakes on the front wheels. However, these vehicles must meet the requirements of § 393.52.

(2) Motor vehicles being towed in a driveaway-towaway operation (including the last truck of triple saddle-mount combinations (see § 393.71(a)(3))) are not required to have operative brakes provided the combination of vehicles meets the requirements of § 393.52.

(3) Any semitrailer or pole trailer (laden or unladen) with a gross weight of 1,361 kg (3,000 pounds) or less which is subject to this part is not required to be equipped with brakes if the axle weight of the towed vehicle does not exceed 40 percent of the sum of the axle weights of the towing vehicle.

(4) Any full trailer or four-wheel pole trailer (laden or unladen) with a gross weight of 1,361 kg (3,000 pounds) or less which is subject to this part is not required to be equipped with brakes if the sum of the axle weights of the towed vehicle does not exceed 40 percent of the sum of the axle weights of the towing vehicle.

(5) Brakes are not required on the steering axle of a three-axle dolly which is steered by a co-driver.

(6) Loaded housemoving dollies, specialized trailers and dollies used to transport industrial furnaces, reactors,

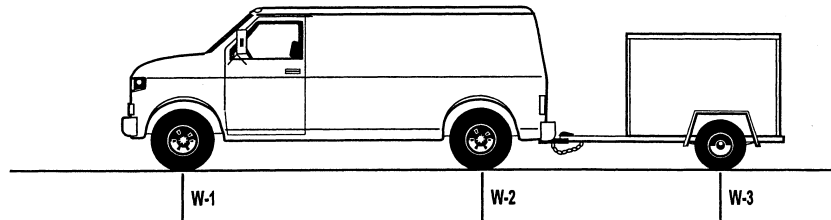
§ 393.43

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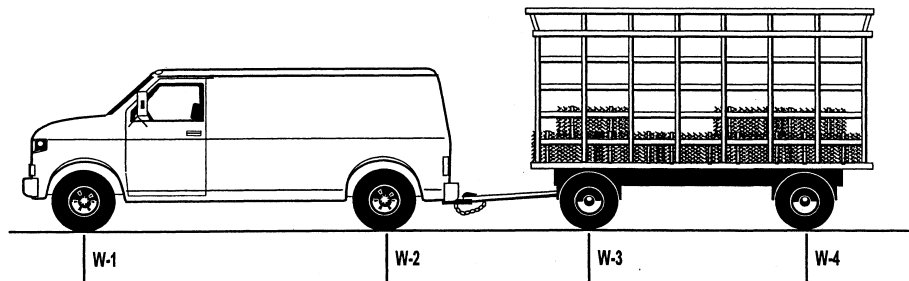
and similar motor vehicles are not required to be equipped with brakes, provided the speed at which the combination of vehicles will be operated does not exceed 32 km/hour (20 mph) and brakes on the combination of vehicles

are capable of stopping the combination within 12.2 meters (40 feet) from the speed at which the vehicle is being operated or 32 km/hour (20 mph), whichever is less.

Figure 22 - Illustrations of Brake Requirements for Light-Duty Trailers in § 393.42



(Semitrailer or 2-wheel pole trailer of 1,360 kilograms (3,000 pounds) gross weight or less must be equipped with brakes if W-3 is greater than 40 percent of the sum of W-1 and W-2.)



(Full trailer or 4-wheel pole trailer of 1,360 kilograms (3,000 pounds) gross weight or less must be equipped with brakes if the sum of W-3 and W-4 is greater than 40 percent of the sum of W-1 and W-2.)

[52 FR 2803, Jan. 27, 1987, as amended at 53 FR 49398, Dec. 7, 1988; 54 FR 48617, Nov. 24, 1989; 59 FR 25574, May 17, 1994; 61 FR 1843, Jan. 24, 1996; 70 FR 48049, Aug. 15, 2005; 76 FR 56321, Sept. 13, 2011]

§ 393.43 Breakaway and emergency braking.

(a) *Towing vehicle protection system.* Every motor vehicle, if used to tow a trailer equipped with brakes, shall be equipped with a means for providing

that in the case of a breakaway of the trailer, the service brakes on the towing vehicle will be capable of stopping the towing vehicle. For air braked towing units, the tractor protection valve